



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/602,996

06/23/2003

Roy T. Hashimoto

SSR-001-1

1615

22888 7590 04/02/2008  
BEVER HOFFMAN & HARMS, LLP  
TRI-VALLEY OFFICE  
1432 CONCANNON BLVD., BLDG. G  
LIVERMORE, CA 94550

EXAMINER

CHAWAN, SHEELA C

ART UNIT

PAPER NUMBER

2624

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/602,996	<b>Applicant(s)</b> HASHIMOTO, ROY T.	
	<b>Examiner</b> SHEELA C. CHAWAN	<b>Art Unit</b> 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14, 18- 27, 29 - 31, 35- 44, 46-48, 52- 61, 63-65, is/are rejected.
- 7) ☒ Claim(s) 11, 15-17, 28, 32-34, 45, 49-51, 62, 66-68 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***DETAILED ACTION***

***Response to Amendment***

1. Applicant's amendment filed on 12/27/07 has been entered and made of record. Claims 1-68 are pending in the application.

***Response to Argument***

2. Applicant's arguments see page 15, lines 14-20, page 16, lines 22- 28, page 17 -18 of remarks, filed 12/27/07, with respect to claims 1-68 have been fully considered and are persuasive. The rejection of claims 1-68 has been withdrawn.

Applicant's arguments see page 15, lines 14-20, page 16, lines 22- 28, page 17 -18 of remarks, filed 12/27/07, with respect to the rejection of claims 1-68, under 102(e) and 103 (a) rejection have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Hsu (US. 6,804,394B1).

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an

application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-10, 12-14, 18-27, 29-31, 35- 44, 46-48, 52-61, 63-65 are rejected under 35 U.S.C. 102(e) as being anticipated by Hsu (US . 6,804,394B1).

As to claim 1, Hsu discloses a method of segmenting an image having a plurality of pixels (fig 1 106) comprising:

dividing the image into a plurality of sticks of pixels wherein each stick contains at least two pixels (abstract, note, segmentation or partition the scene by using grid system in which grid system is used to partition a scene into a set of grid cells or tiles , fig 1, column 7, lines 45- 65) ;

Determining whether each stick belongs to any region from a set of region (column 10, lines 40- 67, column 11, lines 12 - 44); and

classifying each stick that belongs to any region as belonging to a specific region of the set of regions ( column 7, lines 45- 65, column 10, lines 40- 67, column 11, lines 12-44, note, sorting the recognized sample elements that together into regions, column 11, lines 62- 64, column 12, lines 1- 4).

As to claims 2, 19,36 and 53 Hsu discloses the method of Claim 1, wherein each pixel of each stick are from a single raster line ( column 4, lines 11 – 21, column 6, lines 26- 47, column 11, lines 12-18).

As to claims 3, 20, 37 and 54 Hsu discloses the method of Claim 2, wherein each pixel of each stick are consecutive pixels of the single raster line (column 10, lines 45- 50).

As to claims 4, 21,38 and 55 Hsu discloses the method of Claim 2, wherein a size of each stick is a multiple of a word size of a SIMD processor (column 6, lines 26-47, column 9, lines 31- 37).

As to claims 5, 22, 39 and 56 Hsu discloses the method of Claim 1, wherein determining whether each stick belongs to any region from a set of region comprises:

determining whether any pixel of a current stick belongs to any region (fig 9, column 11, lines 30- 37); and

classifying the current stick as belonging to any region when any pixel of the current stick belongs to any region (column 11, lines 31-37, fig 1, 108).

As to claims 6, 23,40 and 57 Hsu discloses the method of Claim 5, wherein the determining whether any pixel of a current stick belongs to any region comprises comparing a binary classifier input value with a threshold level (column 5, lines 63-67, column 6, lines 1-7, 14- 24 ).

As to claims 7, 24, 41 and 58 Hsu discloses the method of Claim 6, wherein the binary classifier input value is a color component (column 9, lines 31- 37 ).

Regarding claims 8, 9, 25, 26, 42, 43, 59 and 60 Hsu discloses wherein the binary classifier input value is a luminance value (column 9, lines 31-37, table III, IV, V and VI).

As to claim 18, see the rejection of claim 1 above.

As to claims 10, 27, 44 and 61 Hsu discloses the method of Claim 5, wherein the determining whether any pixel of a current stick belongs to any region comprises:

comparing a first binary classifier input value with a first threshold level (column 10, lines 30- 67, column 11, lines 12- 45);

comparing a second binary classifier input value with a second threshold level (column 10, lines 30- 67, column 11, lines 12- 45).

As to claim 35, see the rejection of claim 1 above.

As to claim 52, see the rejection of claim 1 above.

As to claims 12, 29, 46 and 63 Hsu discloses the method of Claim 11, wherein the set of previously processed sticks comprises:

a preceding stick on the same raster row as the current stick (fig 9, column 6, lines 25-41);

a first stick on a preceding raster row (column 11, lines 30- 37, fig 9); and

a second stick on the preceding raster row (column 11, lines 30- 37, fig 9).

As to claims 13, 30, 47 and 64 Hsu discloses the method of Claim 12, wherein the first stick is in a same row position as the current stick and the second stick is in a following row position of the current stick (column 11, lines 30- 37, fig 9).

As to claims 14, 31, 48 and 65 Hsu discloses the method of Claim I, further comprising characterizing each region of the set of regions (column 11, lines 30- 37, fig 9).

***Allowable Subject Matter***

4. Claims 11, 15-17, 28, 32- 34, 45, 49-51, 62, 66-68, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As to claims 11, 28,45 and 62 discloses the method of Claim 1, wherein the classifying each stick that belongs to any region as belonging to a specific region of the set of regions comprises:

determining whether any member of a set of previously processed sticks belong to any region;

assigning an earliest region identifier of a set of previously processed sticks to the current stick when a member of the set of previously processed sticks belongs to any region and the current stick belongs to any region ; and

assigning a new region identifier to the current stick when the current stick belongs to any region and no member of the set of previously processed sticks belongs to any region.

As to claims 15, 32,49 and 66 discloses the method wherein the characterizing each region of the set of regions comprises computing rectified moments for each region using a weighting table and unrectified image data.

As to claims 16, 33, 50 and 67 discloses the method of Claim 15, wherein the weighted lookup table comprises precomputed coefficient vectors.

As to claims 17, 34,51 and 68 discloses the method wherein the pre-computed coefficient vectors are a product of a weight factor, a first pixel coordinate raised to a non-negative power, and a second pixel coordinate raised to a non-negative power.

***Other prior art cited***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hsu (US.5,341,439) discloses system for texture-based automatic detection of man-made objects in representations of sensed natural environmental scenes.

Mahoney (US. 6,009,196) discloses method for calssifying non-running text in an image.

Ancin (US. 5,956,468) discloses document segmentation system.



***Contact Information***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela C Chawan whose telephone number is. 571-272-7446. The examiner can normally be reached on Monday - Thursday 7.30 - 6.00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Sheela C Chawan/

Primary Examiner, Art Unit 2624

Application/Control Number: 10/602,996  
Art Unit: 2624

Page 9